

Wild Turkey Landowner Brood Survey 2004

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Abstract

In the primary turkey range, the mean (SE) ratio of poults to hens observed averaged 2.25 ± 0.1 in 2004 compared to 2.82 ± 0.1 in 2003 and the long-term (1988-2003) average of 2.96 ± 0.1 . Fifty-two percent (52%) of hens observed were accompanied by poults during 2004, compared to 55% in 2003. The long-term average is 50.6%.

Methods

Originally, names and addresses for this survey were chosen from a master list compiled in the late 1980's with nonrespondents from previous years being systematically culled from the list. As the size of the list became smaller efforts to increase the size were made during the mid 1990's late 1990's and again in 2003. In the 1990's landowners of 40 or more acres were selected from a mailing list from the University of Wisconsin Extension rural landowner list. In 2003 landowners of 40 or more acres were selected from available county tax roles. Names and addresses were randomly drawn in proportion to ownership in each county. Active names from the previous master list were added to this new list, and nonrespondents are annually culled.

A post-paid card with survey objectives and instructions was mailed in June, July, and August to 9,510 landowners, some of whom were surveyed during previous years. Recipients were requested to report the number of turkey broods, poults/brood, and adult hens with or without a brood seen during June, July, and August. Crawford, Grant, Iowa, LaCrosse, Monroe, Richland, and Vernon counties have been surveyed annually since 1988 and make up Wisconsin's primary turkey range. Comparative statistics were obtained from Buffalo, Dane, Jackson, Juneau, Lafayette, Sauk, and Trempealeau counties beginning in 1990. Calumet, Columbia, Jefferson, Marinette, Pierce, Waukesha, and Waupaca counties were added for comparison in 1993 (Figure 1). The data were analyzed using the Statistical Analysis System (SAS).

Survey data were tabulated by county and month to obtain an index of poult/hen ratios and the proportion of hens with poults. Reports that were either not dated or that had observations from a month other than those specified were excluded.

Results

Reports were received from 2,812 respondents. The response rate was 30%. In the primary turkey range, the mean (SE) poult/hen (P/H) ratio averaged 2.25 ± 0.1 in 2004, compared to 2.82 ± 0.1 in 2003 (Table 1). The long-term P/H ratio averaged 2.96 ± 0.1 between 1988 and 2003 (Figure 2). Fifty-two percent (52%) of hens were accompanied by poults in 2004, compared to 55% in 2003. The long-term average of hens with poults is 50.6%.

Within the 14 other traditional counties, the P/H ratio averaged 2.4 ± 0.1 in 2004, and 55% of hens were accompanied by poults. In 2003, the P/H ratio averaged 2.7 ± 0.1 , and 57% of hens were accompanied by poults.

The P/H ratio increased from 1.6 in June to 2.7 in August (Table 2). Similar trends were observed during 1988-2003 due in part to greater visibility of poults as they attained larger size during the summer. The increase may also be due to "gang brooding" behavior: a phenomenon where two or more hens with broods flock together. This behavior is initiated in late June or July.



Figure 1. *Counties surveyed in 2004.*

Table 1. Comparison of poult/hen ratios within the seven traditional southwestern counties during 2003-2004.

Survey Initiation	County	Year	Reported Sightings	Total Poults	Total Hens	Poult/Hen
1988 - Primary Turkey Range	Crawford	2004	161	713	343	2.08
		2003	176	1,084	366	2.96
	Grant	2004	171	751	366	2.05
		2003	155	975	319	3.06
	Iowa	2004	188	868	439	1.98
		2003	197	1,044	452	2.31
	La Crosse	2004	265	1,412	580	2.43
		2003	321	1,871	705	2.65
	Monroe	2004	285	1,555	648	2.40
		2003	415	2,675	860	3.11
	Richland	2004	198	973	426	2.28
		2003	306	1,614	598	2.70
	Vernon	2004	90	468	190	2.46
		2003	103	605	204	2.97
	7 County Subtotal	2004	1,358	6,740	2,992	2.25
		2003	1,673	9,868	3,504	2.82
1990	Buffalo	2004	224	1,462	481	3.04
		2003	188	1,112	387	2.87
	Dane	2004	108	439	290	1.51
		2003	82	429	185	2.32
	Jackson	2004	338	1,743	733	2.38
		2003	394	2,304	814	2.83
	Juneau	2004	370	1,832	844	2.17
		2003	615	3,988	1,392	2.86
	Lafayette	2004	84	464	192	2.42
		2003	87	466	186	2.51
	Sauk	2004	210	1,113	445	2.50
		2003	184	962	428	2.25
	Trempealeau	2004	88	425	172	2.47
		2003	83	439	160	2.74
	7 County Subtotal	2004	1,422	7,478	3,157	2.37
		2003	1,633	9,700	3,552	2.73
1993	Calumet	2004	111	644	238	2.71
		2003	100	560	202	2.77
	Columbia	2004	274	1,399	642	2.18
		2003	338	1,859	777	2.39
	Jefferson	2004	199	870	463	1.88
		2003	228	946	553	1.71
	Marinette	2004	427	2,534	1,026	2.47
		2003	654	3,956	1,406	2.81
	Pierce	2004	160	1,234	375	3.29
		2003	166	1,384	357	3.88
	Waukesha	2004	26	91	57	1.60
		2003	24	127	37	3.43
	Waupaca	2004	176	1,102	392	2.81
		2003	287	2,160	683	3.16
	7 County Subtotal	2004	1,373	7,874	3,193	2.47
		2003	1,797	10,992	4,015	2.74

Table 2. Comparison of monthly changes in the poult/hen ratio within the seven primary turkey range counties during 2003-2004.

Month	Poult/Hen	
	2003	2004
June	2.0	1.6
July	2.9	2.3
August	3.5	2.7
Mean	2.8	2.3

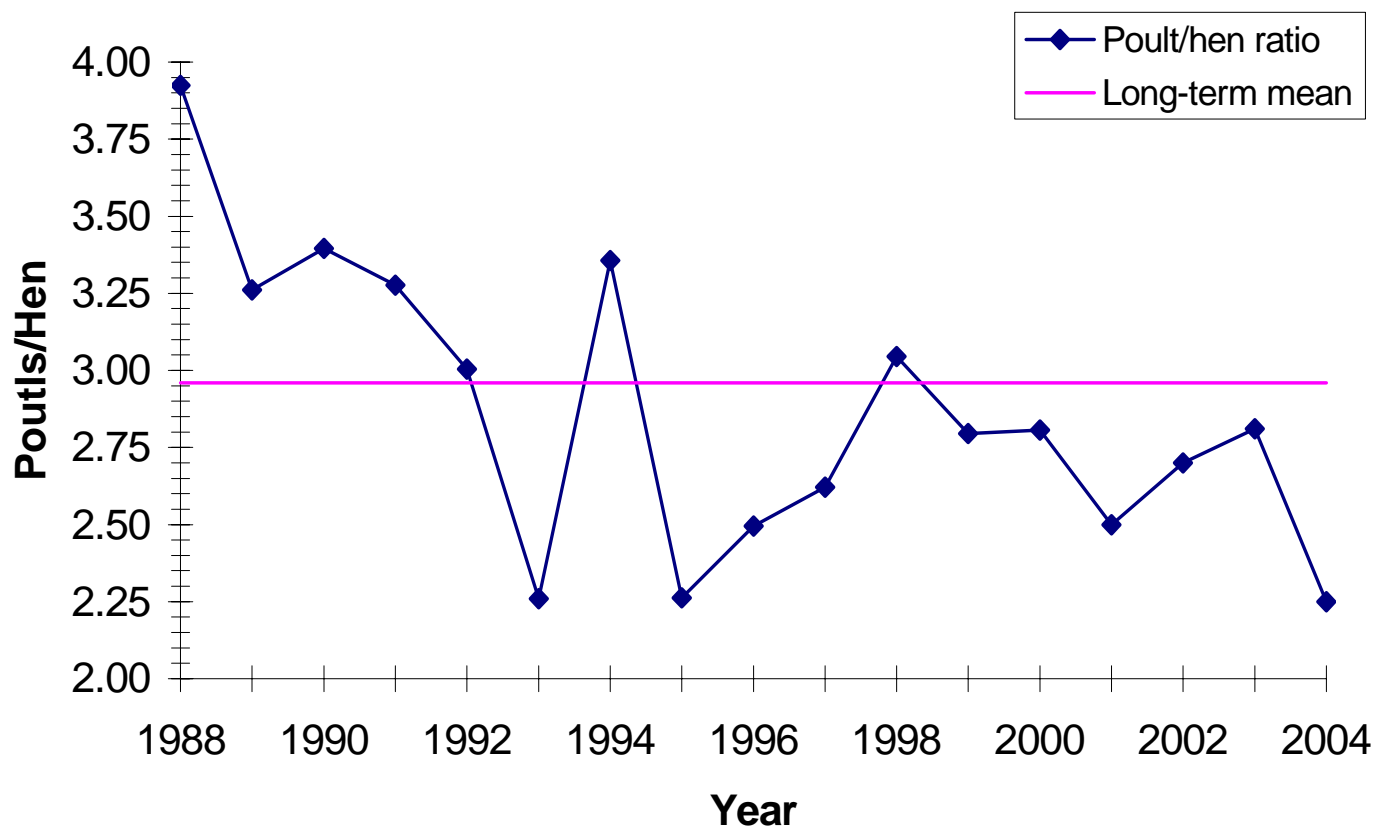


Figure 2. Trends in the poult/hen ratio within the seven primary turkey range counties surveyed from 1988-2004.